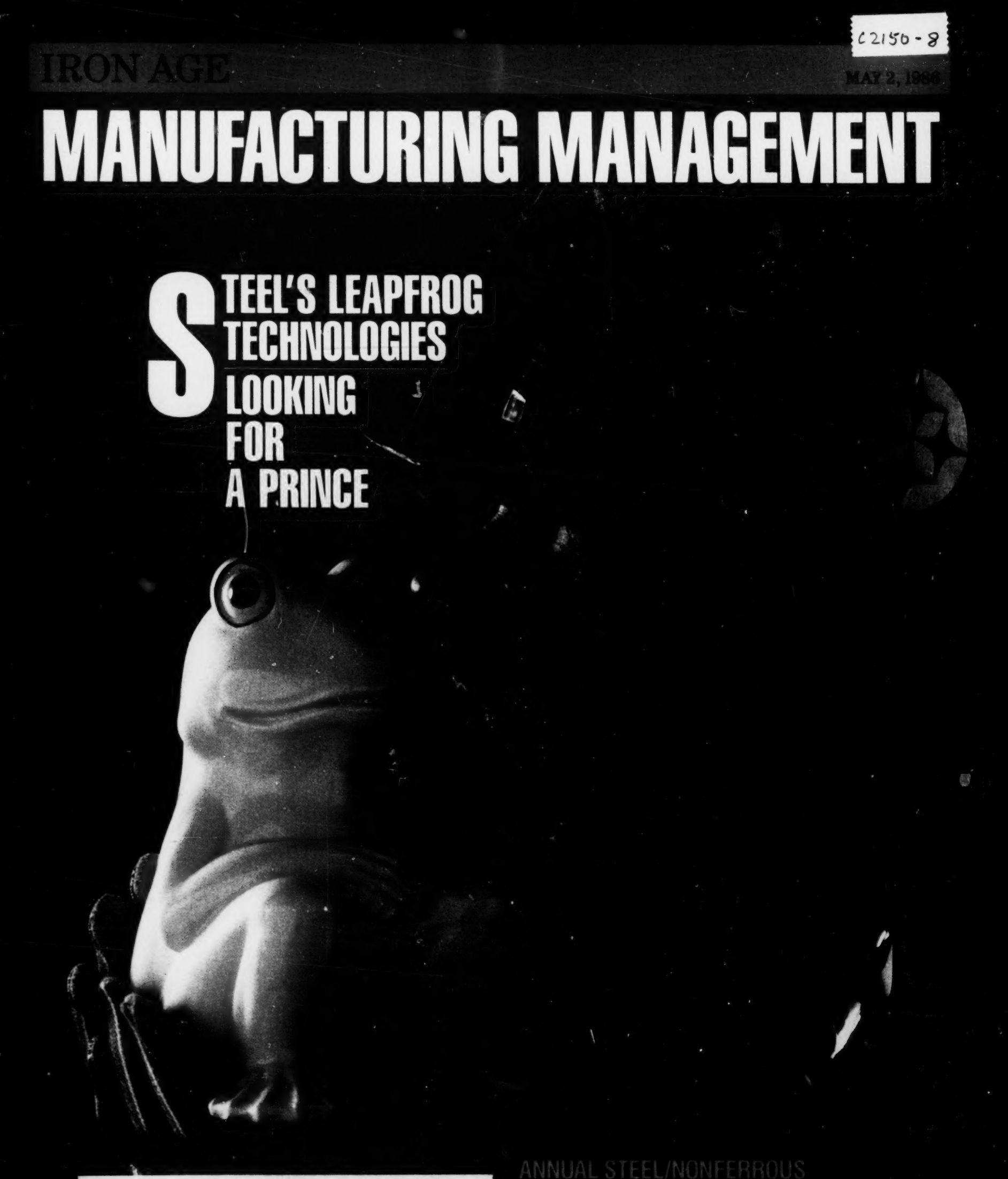
C2150-8

IRON AGE

MAY 2, 1986

MANUFACTURING MANAGEMENT

STEEL'S LEAPFROG TECHNOLOGIES LOOKING FOR A PRINCE



CK014CONGRESSIONO0
OCT86
CONGRESSIONAL INFO SERV /
SRI ACQUISITIONS DIR
4520 EAST WEST HWY
BETHESDA MD 20814

ANNUAL STEEL/NONFERROUS FINANCIAL ANALYSIS: THE WINNERS AND LOSERS

TITANIUM MOVES BEYOND AEROSPACE

MAY 2, 1986 VOL. 229, NO. 9

IRON AGE
MANUFACTURING MANAGEMENT

Editorial 5
Oliver Twist had the right idea.

Newswatch 13
The White House will support Federal product liability legislation.

Steel/Nonferrous Financial Analysis 19
The business recovery continued to elude the metals producers.

You and Your Job 28
Government contracts bring big payoffs to small firms.

Steel's Leapfrog Technologies 32
The quest has begun for a more efficient melting process.

Titanium 49
It looks like this unusual metal is finally going places.

Ellwood City Forge 57
If you can't buy steel, this forger decided, make it.

Supermagnet 65
Energy Conversion Devices puts a lot of stock in this one.

Technically Speaking 66
Inertia welding produces dissimilar metal parts.

Materials Report 78
Rising steel imports and falling auto production worry steelmakers.

Order Trends 90
Still no sign of a takeoff for orders.

Next Issue: America's Superplants—Honda and Nissan.

Departments

EDITORIAL STAFF 6
LETTERS 8
INDUSTRIAL BRIEFS 26
PRODUCT & EQUIPMENT REVIEW 67
FREE LITERATURE 76
AD INDEX 80
BUSINESS STAFF 80
MANAGEMENT SERVICE CARD 81
P&P DATA 4/14 84
FERROUS SCRAP 4/14 87
CLEARING HOUSE 88

IRON AGE (USPS 269-780) is published 24 times a year by CHILTON COMPANY, Chilton Way, Radnor, PA 19089. Chilton Co. is a division of American Broadcasting Companies, Inc., New York, N.Y. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. IRON AGE is sent on a controlled free basis to qualified managers in U.S. metalworking companies. All others: Manufacturing Management edition—$52 one year, $85 Canada/Foreign (24 issues); Metalsproducer edition—$30 one year; $56 Canada/Foreign (12 issues). Single copies, $3.00. Cable Chilton Philadelphia.
Send address changes to IRON AGE, P.O. Box 3026, Wheaton, IL, 60189.

Chilton abc
ONE OF THE ABC PUBLISHING COMPANIES

ANNUAL STEEL/NONFERROUS FINANCIAL ANALYSIS

There was little joy among the steel producers and the nonferrous industries last year. The business recovery that others enjoyed eluded them.

BY MICHAEL MARLEY AND ROBERT REGAN

STEEL

It was another year that many in the domestic steel industry would just as well forget. While some of the industry's best customers enjoyed another year of economic recovery, many of the nation's steelmakers continue their trek through the dark tunnel of recession.

Little or no gain in demand, a steady flood of imports and low prices are the trio of culprits that seem to be plaguing the industry's balance sheets. if the industry ever sees from relief from these burdens, it might turn a healthy profit.

Steel shipments slipped to an estimated 72.7 million tons, off 1 million tons from the previous year. Sales for the 19 steel producing companies included in this year's *Iron Age Financial Analysis* fell an estimated $150 million from the their totals for 1984.

Imports accounted for an estimated 24 pct of the domestic market last year, far above the 18.5 pct figure set by President Reagan voluntary restraint program.

And while many of the domestic steelmakers continue to bring down their labor costs, their efforts went unrewarded. Prices were falling faster than costs.

One healthy omen for this year was the sheet prices increases Jan 1. The new levels held and further increases are scheduled this month.

Nevertheless, the consequences of last year's problems had a predictable impact on the industry balance sheets. Operating profits were down more than $500 million for the companies included in this year survey and net income dipped even deeper into the red—from to an overall loss of $250 million in 1984 to $887 million last year.

There were some companies hard pressed last year. LTV Corp. saw its net income fall to a loss of $724 million last year from a loss of $378 million in 1984. At Wheeling-Pittsburgh Steel Corp., which was hit with a three-month strike by the United Steelworkers of America, the bottom line went from a loss of $59 million in 1984 to a whopping $303 million in the red in 1985.

Perhaps, the most startling figure in this year's Analysis is capital expenditures column. The companies surveyed posted a 18.3 pct increase in their outlays in 1985—an indication that they are hardly ready to throw in the towel.

NONFERROUS

The nonferrous metals companies spent most of 1985 outside the charmed circle of industries enjoying the 1984-85 business recovery. It was another year of absent or declining profits and it also was a year in which plants and businesses were shuttered and big writeoffs taken.

There weren't many gainers in the profits column and companies that made it, like Phelps Dodge Corp. and Inco, Ltd., for instance, showed modest profits against red ink in 1984. Only a third of the leading nonferrous companies on the list showed an increase in sales.

The U.S. dollar remained strong against most other currencies last year, which meant the domestic nonferrous companies had to withstand another year of stiff competition from imports, not only on the primary metal level, but on the mill product level as well. Import volume overall was a bit short of the 1984 level for both aluminum and copper, but 1984 was a busy year for foreign suppliers in the U.S. market.

The softening of the dollar came too late to do the American companies much good in 1985, but the aluminum companies, at least, have seen some easing of pressure on prices more recently and their incoming orders were up sharply in the opening months of the year.

For the copper companies, the benefits of a weaker dollar were confined to modest price improvement during the first quarter that showed signs of running out of steam as the second quarter began. Import volume, which was down in 1985, was showing signs of revival as 1986 progressed and there were no significant decreases in overseas output. The alarm in high places over the steep decline of oil prices on a free market wasn't expected to spill over into the nonferrous metals area, leaving it to the weaker dollar and chances of pickups in metals consumption overseas to take the pressure off the U.S. producers and their contracting domestic smelter base.

Lower oil prices are easing cost pressures on the domestic companies to varying degrees, but large parts of the copper and aluminum industries have to renegotiate wage contracts this Spring. There has been some hedge buying against risk of a strike in the aluminum industry, which has a long record of labor peace, but there has been little sign of it in the copper industry. □

Additional copies of the 1985 Steel/Nonferrous Metals Industries Financial Analysis may be obtained by writing Iron Age Readers Service Department, Chilton Way, Radnor, Pa., 19089. Copies are $2 each. Enclose check or money order with your request.

IRON AGE STEEL INDUSTRY FINANCIAL ANALYSIS

Company[1]	Year	Raw Steel Production Thousands of Net Tons	Steel Shipments Thousands of Net Tons	Net Sales & Operating Revenues 000 of $	Employment Costs 000 of $	Employment Costs as Percent of Sales	Operating Profit[2] 000 of $	Operating Profit as Percent of Sales	Depreciation Depletion and Amortization 000 of $	Provision for Federal Income Taxes 000 of $	Net Income 000 of $	Net Income Percent of Sales	Invested Capital (includes funded debt payable after one year, preferred and common stock and surplus) 000 of $	Net Income Percent of Investment[3]	Working Capital 000 of $	Funded debt (Payable after one year) 000 of $	Interest Expense on Funded debt 000 of $	Capital Expenditures 000 of $	Stockholders' Equity[4] 000 of $	Pct Return on Stockholders' Equity	Number of Common Shares Outstanding in Thousands	Common Stock 000 of $	Common Dividend Declared 000 of $	Earnings Per Common Share	Dividends Per Common Share	Price Range Common Share	P/E Ratio	
1. United States Steel Corp.[5,6,7,8]	1985	16,700	12,900	19,283,000	3,187,000	16.5	2,893,000	15.0	1,294,000	484,000	409,000	2.1	13,034,000	9.6	380,000	5,348,000	841,000	1,184,000	6,555,000	6.2	123,399	123,000	123,000	2.56	1.00	33-22⅜	13-10	1.
	1984	15,100	12,100	19,104,000	3,320,000	17.4	3,287,000	17.2	1,241,000	566,000	493,000	2.6	13,497,000	11.2	541,000	6,261,000	1,019,000	947,000	5,972,000	8.3	107,193	107,000	106,000	3.52	1.00	33¼-22	9-6	
2. LTV Corp.[9,10,11,12]	1985	13,112	10,675	8,198,000	2,639,300	32.2	176,400	2.2	247,200	1,800	(723,900)	(8.8)	2,914,700	(13.9)	185,300	2,146,400	318,900	170,400	652,200	(71.7)	88,559	597,800	—	(8.94)	—	13¼-5¼	—	2.
	1984	9,971	8,265	7,046,100	2,176,000	30.9	39,000	0.6	194,000	(27,400)	(378,200)	(5.4)	3,728,800	(3.4)	576,500	2,226,900	250,600	205,500	1,366,000	(30.2)	83,186	821,462	12,180	(5.84)	.1875	19⅞-8⅞	—	
3. Bethlehem Steel Corp.[13]	1985	10,440	8,792	5,117,700	1,900,000	37.1	328,500	6.4	282,700	22,000	(196,000)	(3.8)	2,661,800	(3.4)	126,800	1,650,500	106,400	322,200	1,011,300	(21.0)	51,981	653,500	14,500	(4.37)	.30	21⅛-12½	—	3.
	1984	12,166	8,925	5,392,100	2,169,900	40.2	288,600	5.4	282,600	18,000	(112,500)	(2.1)	2,422,300	—	147,300	1,265,300	111,700	309,000	1,157,100	(12.4)	46,544	566,200	27,900	(2.91)	.60	29½-14½	—	
4. Inland Steel Co.[14]	1985	6,069	4,703	2,999,422	988,501	33.0	31,312	1.0	119,663	(162)	(178,378)	(5.9)	1,880,528	—	267,971	922,100	64,939	174,790	958,428	—	25,266	358,516	9,473	(7.37)	.375	26-19½	—	4.
	1984	6,479	4,994	3,134,991	1,006,690	32.1	150,262	4.8	124,513	6,123	(41,366)	1.3	1,981,492	1.1	339,523	834,324	62,254	185,104	1,147,168	—	25,054	351,572	12,533	(1.97)	.50	32¾-19⅞	—	
5. Armco Inc.[15,16]	1985	5,347	4,373	3,732,700	1,155,600	31.0	143,200	3.8	152,000	4,600	55,000	1.5	1,733,600	8.2	361,000	640,100	87,800	102,200	1,093,500	5.3	68,036	340,200	—	.69	—	11⅜-6¾	17-10	5.
	1984	5,911	4,556	4,042,600	1,296,600	32.1	86,500	2.1	155,900	4,700	(295,000)	(6.5)	1,744,000	(11.5)	308,000	744,600	95,000	133,300	999,400	(25.8)	67,048	335,300	13,300	(4.55)	.20	23⅜-9	—	
6. National Steel Corp.	1985	4,785	4,409	2,082,311	—	—	50,915	2.4	97,508	200	(88,436)	(4.2)	977,321	(4.9)	48,675	386,573	40,417	262,303	590,748	15.0	—	—	—	—	—	—	—	6.
	1984	4,812	4,524	2,293,145	—	—	180,426	7.9	96,610	937	20,839	0.9	1,104,380	7.2	161,435	425,196	58,582	75,512	679,184	3.1	—	—	—	—	—	—	—	
7. Weirton Steel Corp.[17,18,19]	1985	2,744	2,357	1,156,301	332,785	28.8	87,238	7.5	8,147	—	61,035	5.3	291,078	27.2	200,864	189,766	18,057	47,523	101,312	60.2	6,524	—	—	—	—	—	—	7.
	1984	2,795	2,108	1,075,125	310,198	28.9	83,497	7.8	2,832	—	60,622	5.6	239,295	33.7	179,856	178,673	20,043	37,515	60,622	—	6,500	—	—	—	—	—	—	
8. Nucor Corp.	1985	1,893	1,710	758,495	165,325	21.8	145,671	19.2	31,106	47,700	58,478	7.7	397,736	15.7	213,513	40,234	3,889	29,066	357,502	17.2	14,231	29,685	5,697	4.11	.40	55⅞-31	13.6-7.5	8.
	1984	1,725	1,518	660,260	142,895	21.6	114,977	17.4	28,899	34,000	44,548	6.7	342,835	14.2	152,920	43,232	4,222	26,075	299,603	16.0	14,113	24,567	5,082	3.16	.36	44¼-26	14.0-8.2	
9. Wheeling-Pittsburgh Steel Corp.[20,21]	1985	1,754	1,526	688,171	284,389	41.3	(95,337)	(13.9)	45,209	0	(303,072)	(44.0)	—	—	195,697	0	21,361	34,199	50,468	(600.5)	5,115	51,146	0	(60.87)	—	17⅞-7¼	—	9.
	1984	2,804	2,320	1,057,151	360,858	34.1	48,475	4.6	48,279	(2,208)	(59,376)	(5.6	) 882,564	0.2	124,968	527,291	61,330	26,878	355,273	(16.7)	5,109	51,090	0	(14.12)	—	35¼-13⅜	—	
10. Florida Steel Corp.[22]	1985	1,013	889	287,985	64,861	22.5	27,009	9.4	9,270	4,340	7,741	2.7	148,184	9.0	54,248	52,700	5,658	17,253	95,484	8.1	5,986	9,241	2,389	1.30	.40	11⅝-11⅜	—	10.
	1984	1,010	919	286,108	61,545	21.5	26,621	9.3	9,167	4,363	6,662	2.3	141,356	9.3	50,086	51,545	6,430	11,473	89,811	7.4	5,975	8,920	2,386	1.12	.40	25⅞-13	—	
11. Northwestern Steel & Wire Co.	1985	866	750	260,813	88,400	33.9	(19,123)	(7.3)	15,941	0	(40,846)	(15.7)	173,526	(23.5)	37,914	21,605	5,782	4,138	151,921	(26.9)	7,506	37,532	—	(5.44)	—	16⅝-8	(3)-(1)	11.
	1984	744	541	205,164	86,070	42.0	(30,231)	(14.7)	15,254	(14,229)	(34,296)	(16.7)	236,767	(14.5)	83,321	44,000	3,040	14,470	192,767	(17.8)	7,506	37,532	—	(4.57)	—	25⅞-14½	(6)-(3)	
13. Laclede Steel Co.	1985	757	552	226,066	80,116	35.4	14,742	6.5	3,864	4,090	4,800	2.1	113,143	5.9	65,769	31,795	1,988	6,154	81,348	5.9	2,704	54,329	676	1.77	.25	22-15	12-8	12.
	1984	721	494	228,924	77,483	33.8	17,236	7.5	3,590	4,497	7,409	3.2	101,520	9.0	56,750	24,295	1,740	5,517	77,225	9.6	2,704	54,329	—	2.74	—	17-13	6-5	
13. Cyclops Corp.[23]	1985	628	863	1,385,718	302,140	21.8	72,276	5.2	17,496	21,734	26,228	1.9	263,323	11.8	147,655	46,878	8,584	23,067	216,445	13.5	4,201	4,201	4,258	6.66	1.10	60¾-38¾	8.4	13.
	1984	587	869	1,271,593	298,771	23.5	57,438	4.5	17,731	11,528	18,434	1.4	292,611	8.2	171,141	98,843	9,745	24,878	193,768	10.7	4,098	4,098	4,116	4.82	1.10	39¾-27½	8.1	
14. CF&I Steel Corp.[24,25,26]	1985	606	472	253,292	94,924	37.5	9,334	3.7	14,337	(3,700)	(3,447)	(1.4)	104,486	(1.2)	36,663	26,164	2,144	4,368	78,322	(4.4)	3,966	19,829	—	(.87)	—	16½-6⅝	—	14.
	1984	770	581	325,252	105,826	32.5	24,777	7.6	14,759	(13,399)	(28,146)	(8.7)	105,288	(25.1)	27,460	23,519	1,691	7,580	81,769	(34.4)	3,966	19,829	—	(7.10)	—	30-13	—	
15. Lukens Inc.[27]	1985	476	—	422,480	—	—	20,180	4.8	20,743	(5,326)	(4,189)	(1.0)	202,603	2.4	43,916	87,413	8,952	19,545	115,190	3.3	4,911	3,180	2,450	(.82)	.48	16-11¼	—	15.
	1984	483	—	416,384	—	—	38,214	9.2	19,343	3,780	4,701	1.1	195,643	7.7	40,118	69,798	10,390	17,086	125,845	3.8	5,165	3,180	2,066	.91	.40	16⅜-10⅛	18-11.1	
16. Copperweld Corp.	1985	320	422	354,049	116,900	33.0	6,272	1.8	15,202	(8,154)	(8,196)	(2.3)	216,139	0.2	58,338	82,022	8,679	14,923	134,117	(6.1)	8,610	7,175	1,896	(2.90)	.22	15¾-8⅜	—	16.
	1984	491	514	442,447	140,100	31.7	26,054	5.9	17,295	930	2,651	0.6	248,475	4.6	70,597	87,447	8,775	16,900	161,028	1.6	8,611	7,176	5,044	.24	.58	23¼-11⅜	—	
17. Carpenter Technology Corp.[28]	1985	—	—	556,735	219,908	39.5	65,394	11.7	18,589	14,000	24,512	4.4	444,875	7.4	158,060	125,637	8,293	70,138	319,238	7.7	8,906	45,698	18,613	2.77	2.10	48-35⅞	13.4	17.
	1984	—	—	528,824	-204,643	38.7	76,148	14.4	16,995	21,379	33,441	6.3	433,447	8.7	176,514	126,239	4,333	49,024	307,208	10.9	8,752	44,925	18,289	3.84	2.10	58¼-42	11.0	
18. Quanex Corp.	1985	—	—	296,974	—	—	—	—	15,625	(5,801)	10,121	3.4	223,590	—	35,201	112,883	—	25,302	110,707	10.2	12,256	61,281	—	.89	—	10½-5	12-6	18.
	1984	—	—	398,314	—	—	—	—	23,212	(2,700)	1,979	0.5	214,738	—	36,847	127,349	—	32,443	87,389	2.3	10,658	53,289	—	.19	—	12½-6⅞	—	
19. Athlone Industries Inc.[29]	1985	—	—	217,265	—	—	23,001	10.6	3,953	2,523	2,707	1.2	115,242	15.6	36,581	99,686	15,245	4,396	15,555	17.4	2,374	232	3,743	.91	1.60	23¾-18⅛	23.35	19.
	1984	—	—	218,016	—	—	24,002	11.0	4,063	3,517	5,109	2.3	153,659	11.8	60,527	99,007	12,021	1,842	54,651	11.1	2,399	240	3,831	1.76	1.60	28¾-18⅜	7.6	
GRAND TOTAL	1985	30	30	48,277,477	11,620,149	31	3,979,984	8.3	2,412,553	594,496	(886,842)	—	25,895,874	—	2,654,165	12,010,456	1,568,088	2,515,965	12,688,785	—	—	—	—	—	—	—	—	
	1984	30	30	48,126,498	11,757,579	31	4,538,996	9.5	2,316,042	646,616	(249,489)	—	28,066,170	—	3,304,863	13,258,558	1,740,896	2,127,097	13,407,811	—	—	—	—	—	—	—	—	
Percent Change 1984 to 1985				0.4	(0.1)		(12.4)		4.2	(8.1	—	—	(7.8)	—	(19.7)	(9.5)	(10.0)	18.3	(5.4)	—	—	—	—	—	—	—	—	

Footnotes

Parenthesis ( ) denotes loss or credit

1. Companies are ranked on the basis of raw steel produced in 1984.
2. Operating profit is income before depreciation, income taxes and interest on long-term debt.
3. Net income percent of investment is net income plus expense on funded debt divided by invested capital.
4. Stockholders' equity is total assets minus total liabilities.
5. USS—Data reported is before the Feb. 11, 1986 merger of a subsidiary of U.S. Steel with Texas Oil & Gas Corp.
6. USS—Invested capital includes long-term debt, notes payable, proceeds from production agreements, minority interest, preferred stock of consolidated subsidiary, preferred stock subject to mandatory redemption, and other preferred stock and common stockholders equity.
7. USS—Stockholders' equity includes preferred stock subject to mandatory redemption.
8. USS—In the fourth quarter of 1985, the corporation's board of directors approved the valuation of common stock at the par value of $1 per share rath.er than the stated value of $20. As a result, common stock for 1984 has been restated.
9. LTV—Information in 1984 includes data of the former Republic Steel Corp. from July 1, 1984, the effective date of LTV's acquisition of Republic Steel for accounting purposes.
10. LTV—Operating profit for 1985 excludes special charge of $380,000,000 for rationalization and writedown of facilities.
11. LTV—Invested capital consists of long-term debt, all equity accounts, and deferred income and taxes.
12. LTV—Total value of common stock is determined by year-end market price ($6.75—1985; $9.875—1984) times outstanding shares of stock at year-end.
13. Bethlehem—Invested capital and funded debt includes caster financing obligations of $418,100,000.
14. Inland—1984 results of operations have been restated to reflect the announced discontinuance of Inryco, Inc., the company's construction products business segment.
15. Armco—1984 results of operations have been restated to reflect discontinued operations.
16. Armco—Operating profit includes special charges of $170,000,000 in 1985 and $205,000,000 in 1984. Both years exclude discontinued operations.
17. Weirton—Net income represents income after taxes, before provisions for profit sharing ($20,300,000 in 1985) and the contribution to the Employee Stock Ownership Trust.
18. Weirton—Percent return on shareholders equity is calculated on income after taxes, before provisions for profit sharing and contribution to ESOT. No 1984 return on equity was calculated due to formation of new company in 1984.
19. Weirton—Weirton Steel Corp. is owned by its employees through an ESOT. All shares issued are held and voted by the ESOT.
20. Wheeling-Pittsburgh—Net income for 1985 includes $141,200,000 loss for unusual items relating to the closing of certain facilities, mine closings, investment reserves and expected excise tax.
21. Wheeling Pittsburgh—Funded debt for 1985 included in pre-petition liabilities due to filing a petition seeking reorganization under Chapter 11 on April 16, 1985.
22. Florida Steel—Fiscal year ends Sept. 30.
23. Cyclops Corp.—Net income and earnings per common share in 1985 includes an extraordinary gain of $1,766,000 less applicable taxes of $1,262,000.
24. CF&I—Operating profit for 1984 does not include $74,831,000 write-off of tube mill nor the benefit (amounting to $24,959,000 net of taxes) of the cumulative effect on prior years of changing to straight-line depreciation.
25. CF&I—Provision for Federal income taxes in 1984 does not include $21,261,000 netted in cumulative effect on prior years of changing to straight-line depreciation.
26. CF&I—Net income for 1984 includes $74,831,000 write-off of tube mill and the benefit (amounting to $24,959,000 net of taxes) of the cumulative effect on prior years of changing to straight-line depreciation.
27. Lukens—Operating profit in 1985 includes asset writedowns and other charges totaling $6,654,000, which increased the net loss by $3,593,000 or $.70 per share.
28. Carpenter Technology—Fiscal year ends June 30.
29. Athlone—1984 results of operations have been restated to reflect discontinued operations.
30. Domestic raw steel production in 1985, as reported by the American Iron and Steel Institute, totaled an estimated 87,346,438 net tons, while shipments for the industry were an estimated 72,698,305 net tons. In 1984, according to the AISI, the industry produced 92,528,000 net tons and shipped 73,739,000 net tons.
31. No overall employment costs as a percent of sales has been determined because four of the companies listed have not disclosed this data.

IRON AGE NONFERROUS FINANCIAL ANALYSIS

Company	Year	Net Sales and Operating Revenues 000 of $	Operating Profit 000 of $	Operating Profit as Percent of Sales	U.S. and Foreign Income Taxes 000 of $	Extraordinary Income (Loss) 000 of $	Net Earnings 000 of $	Net Earnings as Percent of Sales	Net Earnings per Common Share	Dividends Per Common Share	Number Common Shares Outstanding at Year End	Stockholders Equity 000 of $	Net Earnings as Percent of Stockholders Equity	Funded and Other Long Term Debt 000 of $	Invested Capital 000 of $	Long term Debt as Pct of Invested Capital	Net Earnings as Percent of Invested Capital	Working Capital 000 of $	Capital Spending 000 of $	Retained Earnings At End of Year 000 of $	
1. Alcan Aluminium, Ltd.	1985	5,718,000	155,000	2.7	(87,000)	(416,000)	180,000	—	—	1.10	99,780,000	2,746,000	—	1,600,000	4,346,000	36.8	—	1,452,000	597,000	1,813,000	1.
	1984	5,467,000	388,000	7.1	151,000	—	253,000	4.6	2.59	1.20	99,118,000	2,916,000	8.9	1,350,000	4,266,000	31.6	5.9	1,488,000	427,000	2,103,000	
2. Aluminum Co. of America	1985	5,162,688	21,367	0.4	(94,900)	—	16,607	—	—	1.20	81,372,239	3,307,918	—	1,606,095	4,914,013	32.7	—	876,500	538,314	2,764,598	2.
	1984	5,750,835	515,815	9.0	150,100	—	256,048	4.5	3.13	1.20	81,140,879	3,343,592	7.7	1,634,893	4,978,485	32.8	5.1	985,933	593,672	2,881,160	
3. Alumax Inc.	1985	1,887,072	111,021	5.9	22,655	—	62,876	3.3	—	—	—	786,301	8.2	385,139	1,171,440	32.9	5.4	467,792	211,211	582,289	3.
	1984	1,973,600	235,300	11.9	69,400	—	126,000	6.4	—	—	—	737,534	18.0	453,674	1,211,208	39.1	10.4	589,733	116,576	536,483	
4. AMAX Inc.	1985	1,788,900	(47,000)	—	6,200	—	(621,000)	—	—	.10	68,507,000	888,400	—	1,075,900	1,964,300	54.8	—	299,300	143,000	(411,400)	4.
	1984	2,107,600	167,600	8.0	30,900	—	(238,300)	—	—	.20	68,602,000	1,610,300	—	982,000	2,592,300	37.9	—	340,300	131,000	211,600	
5. Asarco Inc.	1985	1,166,921	(40,233)	—	2,261	—	(62,184)	—	—	—	32,046,843	649,479	—	435,490	1,224,969	35.6	—	98,599	25,768	438,473	5.
	1984	1,325,129	14,791	1.1	(3,566)	—	(306,080)	—	—	.30	28,374,736	692,588	—	541,105	1,373,693	39.4	—	139,600	34,570	519,377	
6. Brush Wellman Inc.	1985	242,902	48,761	20.1	20,248	(10,025)	17,887	7.4	0.95	.51	20,900,360	220,433	8.3	26,263	246,716	10.6	7.3	96,480	42,211	170,749	6.
	1984	281,142	71,496	25.4	27,856	307	41,539	14.8	2.20	.47	18,623,780	210,550	21.5	27,627	238,177	11.6	17.4	107,506	29,626	162,465	
7. Cominco Ltd.	1985	1,461,121	103,131	7.1	(44,763)	(26,609)	(97,220)	—	—	.16	65,038,288	773,800	—	674,438	1,448,238	46.6	—	84,156	128,100	365,906	7.
	1984	1,585,498	229,001	14.4	(5,166)	5,222	24,179	1.5	0.17	.15	64,304,128	876,500	2.8	617,153	1,493,653	41.3	1.6	159,694	122,894	487,136	
8. Falconbridge Ltd.	1985	890,247	80,838	9.1	—	—	38,543	4.3	0.95	—	41,819,000	786,185	4.9	298,244	1,224,880	24.3	3.1	534,105	99,712	437,734	8.
	1984	733,312	97,041	13.2	—	51,492	28,694	3.9	0.85	—	36,335,000	635,994	4.5	297,862	1,038,839	28.7	2.8	414,661	102,760	401,918	
9. Handy & Harman	1985	556,700	29,475	5.3	1,820	—	6,306	1.1	0.46	.66	14,611,432	131,740	4.7	124,481	256,221	48.6	2.5	101,686	26,647	115,292	9.
	1984	619,507	44,990	7.3	9,760	—	14,156	2.3	1.03	.615	14,611,432	134,431	10.7	104,871	239,302	43.8	5.9	101,541	30,708	118,094	
10. Inco Ltd.	1985	1,490,516	197,836	13.3	49,380	—	52,212	3.5	0.28	.20	102,008,704	1,265,552	4.0	859,059	2,124,611	40.4	2.5	505,300	93,229	512,907	10.
	1984	1,467,984	74,695	5.1	22,170	—	(77,343)	—	—	.20	98,062,274	1,315,623	—	1,050,350	2,365,973	44.4	—	494,361	103,578	486,975	
11. Kaiser Aluminum & Chemical Corp.	1985	2,028,600	(52,100)	—	(144,600)	—	(184,500)	—	—	.15	44,261,392	1,122,700	—	1,236,100	2,358,800	52.4	—	416,700	122,300	781,000	11.
	1984	2,184,500	(77,700)	—	(121,000)	—	(97,400)	—	—	.60	43,786,000	1,283,900	—	1,222,000	2,505,900	48.8	—	443,300	240,400	977,800	
12. Newmont Mining Corp.	1985	684,320	(24,642)	—	(45,995)	1,567	(34,850)	—	—	.50	1,337,800	2,358,920	—	2,251,397	4,610,317	48.8	—	675,214	315,918	693,567	12.
	1984	657,296	(13,351)	—	(2,200)	3,811	41,034	6.2	1.35	.50	1,322,199	2,603,582	—	2,287,210	4,890,792	46.8	—	740,090	433,073	1,041,423	
13. Noranda, Inc.	1985	3,438,862	425,898	12.4	(5,200)	(183,192)	(253,873)	—	—	1.00	30,332,469	1,404,131	—	240,762	1,644,893	14.6	—	112,831	310,715	1,039,183	13.
	1984	3,386,617	534,905	15.8	(4,345)	—	(4,451)	—	—	1.00	30,313,833	1,480,901	2.8	201,982	1,682,883	12.0	2.4	180,451	139,477	1,114,329	
14. Olin Corp.	1985	1,751,106	56,646	3.2	(91,695)	(330,000)	(165,354)	—	—	1.50	22,970,629	686,529	—	353,895	1,040,424	34.0	—	695,148	154,449	568,949	14.
	1984	1,800,045	(95,826)	5.3	(29,698)	—	(88,747)	4.9	3.81	1.37	22,899,078	867,307	10.2	369,270	1,236,577	29.9	7.2	754,948	155,087	867,307	
15. Phelps Dodge Corp.	1985	886,635	58,006	6.5	(12,900)	10,600	29,500	3.3	0.61	—	27,143,450	891,055	3.4	448,079	1,339,134	33.5	2.2	170,336	33,973	496,453	15.
	1984	910,067	(94,401)	—	(19,000)	—	(267,846)	—	—	—	24,642,950	828,700	—	591,185	1,419,885	41.6	—	112,615	65,225	480,347	
16. Reynolds Metals Co.	1985	3,495,900	(358,100	—	(60,600)	5,900	(291,600	—	—	1.00	21,788,000	1,151,700	—	1,215,000	2,366,700	51.3	—	421,300	223,200	753,700	16.
	1984	3,793,600	175,500	4.6	44,500	6,300	(137,300	3.6	6.36	1.00	21,558,000	1,341,100	10.7	1,146,100	2,487,200	46.1	5.5	554,500	429,200	1,077,200	

Alcan Aluminium, Ltd.: Approximately half of the $416 million in special charges and rationalization expenses reflects estimated long-term impairment in economic value of bauxite and alumina operations arising from excess world capacity and current and long term demand. Remainder relates to a program to reduce levels of management and employees, to costs associated with sale and restructuring of a number of small businesses, reduction in value of certain overseas investments and write-down of certain raw material inventories. Benefits from tax-loss carryforwards were $36 million in 1985 and $37 million in 1984.

Aluminum Co. of America: Operating profits exclude equity earnings from unconsolidated entities amounting to $3.4 million in 1985 and $38.6 million in 1984. Net loss for 1985 includes charges of $156.9 million covering plant closings and writedowns. Net for the 1984 period includes writedowns of $53.5 million and a $20.5 million gain from sale of a plant.

Amax, Inc.: Results for 1985 include $45 million charge to provide for losses on tungsten and base metals properties and investments, a $45 million charge for anticipated disposition of the agricultural chemicals business, a net gain of $45 million from sale of the iron ore business and $350 million provision for losses on properties and investments. Results for 1984 included a $205.7 million provision for losses on properties and investments.

Asarco, Inc.: Results for 1985 include a $4.5 million charge for closing of a zinc oxide plant. Results for 1984 include charges of $254 million to reflect indefinite suspension or permanent closing of some mines and plants and the writedown of other asset values. There was a $19.7 million loss in 1985 and a $31.7 million gain in 1984 from results of unconsolidated subsidiaries. Liquidation of LIFO inventories resulted in an increase in pretax earning of $14.6 million in 1985.

Brush Wellman, Inc.: Net for 1985 includes a $10.25 million loss from discontinued operations, including $8.2 million for estimated divestiture costs. There was a $307,000 gain from discontinued operations in 1984. Share and per-share figures for 1984 are restated to reflect a two-for-one split of the common stock in June 1984.

Cominco, Ltd.: Canadian dollars.

Falconbridge, Ltd.: Canadian funds. Net for 1984 excludes extraordinary credits of $51.5 million in extraordinary credits in tax benefits from tax-loss carry-forwards and a gain from sale of stock.

Inco, Ltd.: Per share figure for 1985 is before preferred dividend requirements, which exceeded net income. Net sales and operating revenues exclude other income amounting to $34.4 million in 1985 and $48.3 million in 1984. Retained earnings at end of 1985 included an $18 million gain on retirement of Series A preferred shares which was credited directly to retained earnings.

Kaiser Aluminum & Chemical Corp.: Results for 1985 includes $8.3 million loss from discontinued operations of which $5 million covered charges for their sale. Results for 1984 include $60.7 million loss from discontinued operations, of which $60.7 million covered charges for their sale.

Newmont Mining Corp.: Losses from discontinued operations were $8.15 million in 1985 and $1.26 million in 1984. Tax benefits from tax-loss carryforwards amounted to $1.57 milion in 1985 and $3.8 million in 1984. Loss in 1985 from continuing operations included a net charge of $58.8 million for asset writedowns and closings.

Noranda, Inc.: Canadian funds. Extraordinary losses include writedown of carrying value of certain assets resulting in $273.6 million after-tax charge, $34 million provision for loss on contracts for purchase and sale of tin and after-tax gain totaling $124.4 million on sales of investments in associate companies.

Olin Corp.: Results for 1985 includes $19.1 million gain from sale of a discontinued operation. Income from discontinued operations was $25 million. Extraordinary loss relates to company restructuring program. Results for 1984 include $15.3 million gain from discontinued operations.

Phelps Dodge Corp.: Net for 1985 includes $10.6 million tax benefit from tax-loss carry-forward. Results for 1984 cover $207.3 million loss from continuing operations, including pre-tax provision of $110 million for loss on restructuring certain operations, and $60.5 million loss from discontinued operations including $85 million loss from disposal of discontinued operation.

Reynolds Metals Co.: Loss for 1985 includes $313.5 million writedown of certain assets and a $5.9 million tax benefit from tax-loss carryforwards. Net for 1984 includes $6.3 million tax benefit from tax-loss carryforwards and a $14.8 million charge for shutdown of certain facilities.

PRICE & PRODUCTION DATA

(Effective April 14,1986)

Steel production by districts, thousands of tons (000 omitted)

	Last Week	Two Weeks Ago	Month Ago	Year Ago
Northeast Coast	197	184	192	198
Pittsburgh	248	228	254	240
Youngstown	109	107	116	112
Lake Erie	172	142	156	169
Detroit	144	148	147	146
Chicago	500	518	483	510
Midwest	165	167	161	172
Southern	200	199	202	230
Western	89	87	91	84
U.S. Production	1,824	1,780	1,803	1,861

Source: American Iron & Steel Institute

Lake Superior Ore Prices

51.50% Fe Natural delivered lower Lake ports unless otherwise stated. Rail transportation, handling and unloading may be charged to buyer. Coarse ore 80¢ premium.

Pellets (per iron unit natural) ..... gross-ton 58.0*
Pellets (per iron unit natural) ..... gross-ton 59.4**
Pellets (per iron unit natural) ..... gross-ton 72.5-86.9***
Mesabi, regular-unscreened ..... gross-ton $32.53
Mesabi, non-bessemer ..... gross-ton $30.03-31.53

*58.0¢—Mineral Services, Inc. as of 8/13/85. **59.4¢—Pickands Mather, 8/1/85, delivered hold of vessel, upper Lake ports. ***72.5¢—U.S. Steel as of 8/16/85. 86.9¢—Oglebay Norton 3/25/82; Hanna Mining and Cleveland-Cliffs, 2/26/82.

STEEL PRODUCTION, COMPOSITE PRICES

(Effective April 14,1986)

U.S. Steel Production	Last Week	Two Weeks Ago	To Date 1986	To Date 1985
Net tons, in thousands	1,824	1,780	25,911	24,716
Capability Utilization Rate	73.8	72.0	71.3	65.6

Composite Prices	This Week	Week Ago	Month Ago	Year Ago
Finished Steel Base* (¢/lb.—eff. 1/1/86)	24.607	24.607	24.607	27.582
Pig Iron** (Net ton=2000 lbs.)	$213.00	$213.00	$213.00	$213.00
Scrap No. 1 hvy.*** (Gross ton=2240 lbs.)	$ 73.83	$ 73.83	$ 73.50	$ 80.50
No. 2 bundles	$ 53.50	$ 53.50	$ 53.83	$ 55.50

Scrap Comparison (Gross Ton)

No. 1 steel, Pittsburgh	$ 73.50	$ 73.50	$ 73.50	$ 83.50
No. 1 steel, Philadelphia	73.50	73.50	72.50	78.50
No. 1 steel, Chicago	74.50	74.50	74.50	79.50
No. 1 bundles, Detroit	62.50	62.50	65.50	76.50
Low Phos., Youngstown	73.50	73.50	73.50	68.50
No. 1 mach'y cast., Pgh	73.50	73.50	73.50	71.50
No. 1 mach'y cast., Phila	93.50	93.50	93.50	93.50
No. 1 mach'y cast., Chi	109.50	109.50	109.50	111.50

*Finished Steel Composite: Weighted index of steel bars, shapes, plates, wire, rails, black pipe, hot and cold rolled sheets and strips.
**Pig Iron Composite: Based on average prices for basic and foundry pig iron at representative producing points within the U.S.
***Steel Scrap Composite: Average of No. 1 hvy. melting steel scrap and No. 2 bundles delivered to consumers at Pittsburgh, Philadelphia and Chicago.

NONFERROUS PRICES

(Effective April 14,1986) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated.

Primary Metal Prices

(cents per lb.)	current price	last price	date of change
Aluminum (LME)	52.83	52.79	4/14/86
Copper (C)	67.00-71.00	66.50-71.00	4/11/86
Lead	18.75-19.00	18.25-19.00	4/ 9/86
Magnesium Ingot	153.00	148.00	12/ 9/85
Nickel (LME)	183.49	180.26	4/14/86
Zinc	32.00 35.00	35.00	4/ 7/86

ALUMINUM: Avg. for last week & previous week. COPPER (C) = cathode. LEAD: common grade. MAGNESIUM: 99.8% pig. delivered. NICKEL: Avg. for last week & previous week. ZINC: high grade.

Antimony, American Laredo, Texas	$2.00
Beryllium-aluminum 5% Be, per lb. contained Be	$236.00
Beryllium-copper, per lb. cont. Be	$144.00
Beryllium 97% powder 200	$197.00
Cadmium, ton lots	$1.00
Calcium, ton lots, crown	$3.92
Chromium, 99.5% electro	$4.62
Cobalt, 99%, cathode	$11.70
Gold per troy oz.	$341.85
Indium, dollars per troy oz.	$2.50
Iridium, dollars per troy oz.	$430.00
Magnesium sticks, 10,000 lbs.	$2.02
Mercury, per 76-lb., f.o.b. N.Y.	$265.00-285.00
Molybdenum, lb. tech. moly oxides, 20 lb. MO can	$3.25
Palladium, per troy oz.	$110.00
Platinum, per troy oz.	$433.00
Rhodium, per troy oz.	$1,150.00
Silver ingots, per troy oz.	$5.385
Titanium sponge, melt grade	$3.40-3.55
Tungsten powder, hyd red.	$9.50-9.85
Vanadium	$6.00
Zirconium sponge	$12.00-17.00

(Per lb. unless otherwise noted)

Straits Tin Price

(U.S. cents per lb. EX-SMELTER, based on daily market in Kuala Lumpur in Malaysian dollars per kilo.)

Apr. 7—246.16
Apr. 8—N.Q.
Apr. 9—257.35
Apr. 10—N.Q
Apr. 11—257.72
N.Q.=No Quote

Scrap Prices
Brass Mill Scrap

(Cents per lb; over 20,000 lbs. add 1¢ per lb)

	Solids	Turnings
Copper	64	56
Yellow brass	54	46 1/4
Red brass	58 5/8	49 3/4
Comm. bronze	60 1/2	50 3/4
Mang. bronze	42	40 1/2
Free cutting rod ends	49	48

Custom Smelters Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	59
No. 2 copper wire	51
Light copper	42

Ingot Makers Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	55
No. 2 copper wire	47
Light copper	38
No. 1 composition	46
No. 1 comp. turnings	45
Hvy. yellow brass solids	30
Hvy. yellow brass turnings	26
Radiators	34

Aluminum

New mixed clips	41	— 42
Old sheet	38	— 39
Old cast	38	— 39
Clean dry borings	39	— 40

Dealers' Scrap

(Dealers' buying price f.o.b. New York in cents per pound)

Aluminum

Segregated clippings	31	— 33
Mixed L.C. clips	27	— 28
Old sheets and cast	24	— 25
Borings and turnings	21	— 22
Duraluminum clippings	24	— 25

Copper and Brass

No. 1 copper wire	47	— 48
No. 2 copper wire	39	— 40
Light copper	32	— 33
Radiators	30	— 31
No. 1 composition	39	— 40
No. 1 composition turnings	35	— 36
Cocks and faucets	28	— 29
Clean heavy yellow brass	27	— 28
Brass Pipe	28	— 29
New soft brass clippings	39	— 40

Lead

Heavy soft lead	5	— 7
Whole batteries	1	— 3
Type metal	15	— 17
Electrotype	13	— 14

Nickel

Nickel solids	110	—120
Nickel rod ends	110	—120
Nickel sheets, clips	110	—120
Nickel turnings	25	— 35

Zinc

New zinc clippings	15	— 16
Old diecast zinc	11	— 12

St. Louis price reporting change
Effective April 7, *Iron Age* will no longer list prices for Foundry Steel, 2 ft. in the **St. Louis** market since the volume of business in this grade is minimal. *Iron Age* will list prices for No. 1 Busheling in that region.

EFFECTIVE APRIL 14, 1986

(Effective April 14,1986) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated. Prices are the opinions of *Iron Age* editors and correspondents, based on contacts with dealers, brokers, generators and users in the industry on the effective date listed above.

Ferrous Scrap Prices

Pittsburgh

No. 1 hvy. melting	$ 73.00 to	$ 74.00
No. 2 hvy. melting	63.00 to	64.00
No. 1 dealer bundles	87.00 to	88.00
No. 1 factory bundles (auto)	89.00 to	90.00
No. 2 bundles	46.00 to	47.00
No. 1 busheling	84.00 to	85.00
Machine shop turnings	8.00 to	9.00
Shoveling turnings	43.00 to	44.00
Cast iron borings	42.00 to	43.00
Low phos. punchings plate	96.00 to	97.00
Heavy turnings	63.00 to	64.00
No. 1 RR hvy. melting	85.00 to	86.00
Rails, 2 ft. and under	95.00 to	96.00
Scrap rails, random lgth	80.00 to	81.00
RR specialties	95.00 to	96.00
No. 1 machinery cast	73.00 to	74.00
Cupola cast	66.00 to	67.00
Heavy breakable cast	30.00 to	31.00
Stainless		
18-8 bundles and solids	520.00 to	530.00
18-8 turnings	420.00 to	430.00

Chicago

No. 1 hvy. melting	$ 74.00 to	$ 75.00
No. 2 hvy. melting	69.00 to	70.00
No. 1 dealer bundles	87.00 to	88.00
No. 1 factory bundles (auto)	87.00 to	88.00
No. 2 dealer bundles	59.00 to	60.00
No. 1 busheling	82.00 to	83.00
Shredder scrap	82.00 to	83.00
Machine shop turnings	31.00 to	32.00
Mixed borings and turnings	32.00 to	33.00
Shoveling turnings	34.00 to	35.00
Cast iron borings	46.00 to	47.00
Low phos. forge crop	99.00 to	100.00
Low phos. punchings plate 1/4 in. and heavier	114.00 to	115.00
Low phos. 2 ft. and under	108.00 to	109.00
No. 1 RR hvy. melting	77.00 to	78.00
Scrap rails random lgth	80.00 to	81.00
Reroller rails	105.00 to	106.00
Rails, 2 ft. and under	101.00 to	102.00
RR couplers and knuckles	93.00 to	94.00
RR car axles	108.00 to	109.00
No. 1 machinery cast	109.00 to	110.00
Cupola cast	94.00 to	95.00
Stove plate	99.00 to	100.00
Steel car wheels	92.00 to	93.00
Stainless		
18-8 bundles and solids	495.00 to	505.00
18-8 turnings	405.00 to	415.00
430 bundles and solids	125.00 to	135.00
430 turnings	85.00 to	95.00

Philadelphia

No. 1 hvy. melting	$ 72.00 to	$ 75.00
No. 2 hvy. melting	63.00 to	66.00
No. 1 dealer bundles	85.00 to	88.00
No. 2 dealer bundles	53.00 to	56.00
No. 1 busheling	85.00 to	88.00
Shredder scrap	83.00 to	86.00
Machine shop turnings	24.00 to	27.00
Mixed borings and turnings	24.00 to	27.00
Shoveling turnings	40.00 to	43.00
Low phos. 5 ft. and under	77.00 to	80.00
Low phos. 2 ft. punchings	97.00 to	100.00
Electric furnace bundles	87.00 to	90.00
RR specialties	77.00 to	80.00
Rails, 2 ft. and under	100.00 to	103.00
Cupola cast	89.00 to	92.00
Heavy breakable cast	53.00 to	56.00
No. 1 machinery cast	92.00 to	95.00

Detroit

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 49.00 to	$ 50.00
No. 2 hvy. melting	48.00 to	49.00
No. 1 dealer bundles	62.00 to	63.00
No. 2 bundles	28.00 to	29.00
No. 1 busheling	61.00 to	62.00
Drop forge flashings	40.00 to	41.00
Machine shop turnings	25.00 to	26.00
Mixed borings and turnings	9.00 to	10.00
Shoveling turnings	25.00 to	26.00
Cast iron borings	18.00 to	19.00
Heavy breakable cast	32.00 to	33.00
Mixed cupola cast	47.00 to	48.00
Automobile cast	70.00 to	71.00
Stainless		
18-8 bundles and solids	480.00 to	490.00
18-8 turnings	345.00 to	355.00
430 bundles and solids	115.00 to	125.00

Youngstown

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 58.00 to	$ 59.00
No. 2 hvy. melting	56.00 to	57.00
No. 1 dealer bundles	74.00 to	75.00
No. 2 dealer bundles	36.00 to	37.00
Machine shop turnings	24.00 to	25.00
Shoveling turnings	24.00 to	25.00
Low phos. plate	73.00 to	74.00
Electric furnace bundles	62.00 to	63.00
Galvanized bundles	60.00 to	61.00

Cleveland

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 56.00 to	$ 57.00
No. 2 hvy. melting	54.00 to	55.00
No. 1 dealer bundles	78.00 to	79.00
No. 1 factory bundles	70.00 to	71.00
No. 2 bundles	33.00 to	34.00
No. 1 busheling	69.00 to	70.00
Machine shop turnings	24.00 to	25.00
Shoveling turnings	24.00 to	25.00
Cast iron borings	21.00 to	22.00
Cut structural & plates, 5 ft. and under	67.00 to	68.00
Cut structural & plates, 2 ft. and under	89.00 to	90.00
Low phos. punchings plate	89.00 to	90.00
Foundry steel, 2 ft. & under	55.00 to	56.00
No. 1 RR hvy. melting	61.00 to	62.00
Rails, 2 ft. and under	90.00 to	91.00
Rails, 18 in. and under	92.00 to	93.00
No. 1 machinery cast	78.00 to	79.00
Mixed cast	45.00 to	46.00
Stainless		
18-8 bundles	480.00 to	490.00
18-8 turnings	350.00 to	360.00
430 bundles	120.00 to	130.00

Buffalo

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 53.00 to	$ 54.00
No. 2 hvy. melting	43.00 to	44.00
No. 1 busheling	69.00 to	70.00
No. 1 dealer bundles	69.00 to	70.00
No. 2 bundles	30.00 to	31.00
Machine shop turnings	14.00 to	15.00
Mixed boring and turnings	14.00 to	15.00
Shoveling turnings	20.00 to	21.00
Cast iron borings	24.00 to	25.00
Low phos. plate	79.00 to	80.00
Structural and plate, 2 ft. and under	80.00 to	81.00
Rails, 2 ft. and under	80.00 to	81.00
Scrap rails, random lgth	62.00 to	63.00
No. 1 machinery cast	84.00 to	85.00
No. 1 cupola cast	69.00 to	70.00

St. Louis

No. 1 hvy. melting	$ 72.00 to	$ 73.00
No. 2 hvy. melting	57.00 to	58.00
No. 1 busheling	83.00 to	84.00
No. 1 dealer bundles	81.00 to	82.00
No. 2 bundles	51.00 to	52.00
Machine shop turnings	20.00 to	21.00
Shoveling turnings	24.00 to	25.00
Cast iron borings	30.00 to	31.00
No. 1 RR hvy. melting	76.00 to	77.00
Rails, random length	74.00 to	75.00
Rails, 18 in. and under	97.00 to	98.00
RR specialties	81.00 to	82.00
Cupola cast	71.00 to	72.00
Heavy breakable cast	49.00 to	50.00
Stove plate	91.00 to	92.00
Steel car wheels	83.00 to	84.00
Rerolling rails	99.00 to	100.00
Unstripped motor blocks	54.00 to	55.00

Birmingham

No. 1 hvy. melting	$ 70.00 to	$ 71.00
No. 2 hvy. melting	66.00 to	67.00
No. 1 dealer bundles	70.00 to	71.00
No. 2 bundles	46.00 to	47.00
No. 1 busheling	70.00 to	71.00
Shredder scrap	88.00 to	89.00
Machine shop turnings	25.00 to	26.00
Shoveling turnings	39.00 to	40.00
Cast iron borings	38.00 to	39.00
Electric furnace bundles	65.00 to	66.00
Elec. furnace, 3 ft. & under	66.00 to	67.00
Structural and plate, 2 ft.	89.00 to	90.00
Structural and plate, 4 ft.	83.00 to	84.00
No. 1 RR hvy. melting	83.00 to	84.00
Scrap rails, random lgth	70.00 to	71.00
Rails, 2 ft. and under	87.00 to	88.00
Angles and splice bars	83.00 to	84.00
No. 1 cupola cast	84.00 to	85.00
Unstripped motor blocks	74.00 to	75.00

Cincinnati

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 54.00 to	$ 55.00
No. 2 hvy. melting	53.00 to	54.00
No. 1 dealer bundles	69.00 to	70.00
No. 2 bundles	34.00 to	35.00
Machine shop turnings	9.00 to	10.00
Shoveling turnings	12.00 to	13.00
Cast iron borings	19.00 to	20.00
Low phos. 18 in. and under	77.00 to	78.00
Rails, random length	59.00 to	60.00
Rails, 2 ft. and under	79.00 to	80.00
No. 1 cupola cast	66.00 to	67.00
Heavy breakable cast	27.00 to	28.00
Drop broken cast	72.00 to	73.00

New York

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 44.00 to	$ 45.00
No. 2 hvy. melting	35.00 to	36.00
No. 2 dealer bundles	20.00 to	24.00
Mixed borings and turnings	10.00 to	11.00
Machine shop turnings	4.00 to	6.00
Shoveling turnings	10.00 to	12.00
Clean cast, chem. borings	35.00 to	36.00
No. 1 machinery cast	79.00 to	80.00
Mixed yard cast	50.00 to	51.00
Heavy breakable cast	10.00 to	12.00
Stainless		
18-8 prepared solids	460.00 to	480.00
18-8 turnings	355.00 to	380.00
430 prepared solids	90.00 to	100.00
410 solids	75.00 to	85.00

Boston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 51.00 to	$ 53.00
No. 2 hvy. melting	41.00 to	43.00
No. 1 dealer bundles	53.00 to	55.00
No. 2 bundles	34.00 to	36.00
No. 1 busheling	59.00 to	61.00
Shredder scrap	61.00 to	63.00
Machine shop turnings	12.00 to	14.00
Shoveling turnings	18.00 to	20.00
No. 1 machinery cast	75.00 to	80.00
Mixed cupola cast	46.00 to	48.00
Heavy breakable cast	8.00 to	10.00

San Francisco

No. 1 hvy. melting	$ 43.00 to	$ 45.00
No. 2 hvy. melting	37.00 to	39.00
No. 1 dealer bundles	34.00 to	36.00
No. 2 dealer bundles	22.00 to	24.00
Machine shop turnings	8.00 to	9.00
Cast iron borings	8.00 to	9.00
No. 1 cupola cast	80.00 to	82.00

Los Angeles

No. 1 hvy. melting	$ 37.00 to	$ 39.00
No. 2 hvy. melting	31.00 to	33.00
No. 1 dealer bundles	29.00 to	31.00
No. 2 dealer bundles	16.00 to	18.00
Machine shop turnings	9.00 to	10.00
Shoveling turnings	10.00 to	11.00
Cast iron borings	8.00 to	9.00
Elec. furnace, 1 ft. and under (foundry)	70.00 to	72.00
No. 1 cupola cast	72.00 to	74.00

Seattle

No. 1 hvy. melting	60.00 to	62.00
No. 2 hvy. melting	51.00 to	53.00
No. 2 bundles	35.00 to	37.00
No. 1 cupola cast	89.00 to	90.00
Mixed yard cast	80.00 to	82.00

Hamilton, Ont.

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 81.00
No. 2 hvy. melting, cut 2 ft. and under	72.00
No. 1 dealer bundles	87.00
No. 2 bundles	61.00
Mixed steel scrap	59.00
Bush. new fact. prep'd	81.00
Bush. new fact. unprp'd	64.00
Machine shop turnings	34.00
Short steel turnings	34.00
Mixed borings and turnings	19.00
Cast scrap	92.00

Houston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 70.00 to	$ 71.00
No. 2 hvy. melting	55.00 to	56.00
No. 2 bundles	40.00 to	41.00
Machine shop turnings	11.00 to	12.00
Crushed turnings	30.00 to	31.00
Shredder scrap	76.00 to	77.00
Cut structural plate, 2 ft. and under	98.00 to	99.00
Cut structural plate, 5 ft. and under	80.00 to	81.00
Unstripped motor blocks	57.00 to	58.00
Cupola cast	85.00 to	86.00

STILL NO SIGN OF TAKEOFF FOR ORDERS

Durable goods makers are still looking for an upside orders breakout.

The latest month of complete data shows that orders in February were down 1.2 pct from January. In the latest 12 months through February, orders were up six times and down six times.

Further, the dollar value of orders in February, at $107.2 billion, was actually fractionally lower than it was way back in last August.

There is one dimly bright side to the February orders picture. The decline in orders was due almost entirely to a drop-off in orders for defense-related capital goods. That fall was a whopping 30 pct.

If defense capital goods are excluded from the February totals, then orders were up 1.9 pct. And the big gainer was a 15.7 pct jump in orders for nonelectrical machinery.

Still, that rise bypassed producers in industrial heavy goods lines. It was a big rise in orders for office and computing equipment that accounted for the gain in machinery orders. It was the same office equipment orders that accounted for the sharp rise in nondefense capital goods, as noted on the table here.

One 'plus' sign in the recent trend in durable goods orders, shipments and inventories has been an unbroken eight-month-long slide in inventories. In February, these stocks were some $4.5 billion below the level of last June. So, when orders do show any fresh signs of strength, then reordering for stock should add momentum to the upward thrust at that time.

Note that in the table, the base year for fluid power equipment has been changed to 1985. This applies to data shown for this year, but the old base year of 1972 applies in the case of February of last year. At this time, no index conversion factor is available for 1985 data.

Billions of Dollars, Seasonally adjusted Monthly Total, unless otherwise noted Source: U.S. Dept of Commerce		Latest Month or Qtr.	Previous Month or Qtr.	Same Period Year Ago
CAPITAL EXPENDITURES (Annual Rates)				
U.S. Industry, Total	1st Qtr*	$402.1	$389.0	$371.2
Manufacturing, Total	1st Qtr*	154.7	155.7	145.7
Manufacturing, Durable Goods	1st Qtr*	72.0	73.5	69.9
Mining Industry	1st Qtr*	15.3	15.2	15.7
KEY INDICATORS, Durable Goods Manufacturing				
New Orders	Feb.	107.2	108.5	102.5
Shipments	Feb.	105.3	105.9	101.7
Inventories	Feb.	187.8	188.5	192.0
Unfilled Orders	Feb.	355.8	353.0	359.9
NEW ORDERS, METALWORKING				
Capital Goods Producers, Nondefense Industries	Feb.	28.8	24.6	29.5
Capital Goods Producers Defense Industries	Feb.	7.2	10.4	6.7
Primary Metals, Total	Feb.	10.6	10.6	10.0
Steel (SIC 331)	Feb.	4.6	4.2	4.4
Iron & Steel Castings (SIC 332)	Feb.	1.2	1.4	1.1
Nonferrous Metals	Feb.	4.8	5.0	4.5
Nonelectrical Mach.-Equip. Industries, Total	Feb.	18.4	15.9	20.5
Engines & Turbines	Feb.	1.4	1.3	1.2
Farm Machinery & Equipment (Shipments)	Feb.	0.8	0.9	0.7
Construction, Mining & Mat. Hdlg. Equip	Feb.	3.0	3.2	2.5
General Industrial Machinery	Feb.	1.4	1.4	1.3
Fluid Power Equipment** (Index-1985=100)	Feb.	105.0	122.0	279.0
Metalworking Machinery	Feb.	0.8	0.8	0.9
Machine Tools, Total ($Mill., Unadjusted)***	Feb.	211.1	190.8	237.5
Machine Tools, Metalcutting***	Feb.	168.8	135.0	163.8
Machine Tools, Metalforming***	Feb.	42.3	55.8	73.7
Electrical Mach. & Equip. Industries, Total	Feb.	15.8	15.3	14.5
Elec. Transmission Equip. & Ind. Apparatus	Feb.	1.9	2.2	1.8
Household Appliances	Feb.	1.3	1.5	1.4
Communication Equipment	Feb.	5.7	5.5	5.0
Transportation Equipment, Total	Feb.	28.5	31.0	24.8
Motor Vehicles & Parts (Shipments)	Feb.	18.5	19.4	17.5
Aircraft, Missiles & Parts	Feb.	8.8	10.9	6.1
Shipbuilding & Military Tanks	Feb.	0.2	-0.1	0.1
Fabricated Metal Products, Total	Feb.	13.9	14.3	13.0
Instruments, Total	Feb.	4.7	4.9	4.8

*Est.—Commerce Dept; **Source: National Fluid Power Assn.; ***Source: NMTBA